



PC SYSTEMS NEWS

■ WINDOWS LONGHORN BECOMES VISTA



Microsoft has revealed that the next version of Windows, due to replace XP, will be called Windows Vista (see *Newsfile*, page 250).

The operating system, which until now has been known by its development codename Longhorn, was made available to the public for the first time – although only in a testing Beta 1 version for software developers – on 3rd August. A more widely available Beta 2 for end-users is unlikely to appear until the beginning of 2006. However, the launch of the main commercial version of Vista will not occur until some time towards the end of 2006.

Microsoft said that the upgrade would be worth the wait as Vista will have a raft of innovative features. According to the software giant the operating system will be able to load applications 15 per cent faster, while its boot time will be cut in half compared with Windows XP.

The five-year gap between the release of Windows XP and Vista is the longest ever development cycle for a major release of a Microsoft operating system.

■ INTEL BOOSTS CELERONS WITH 64-BIT MEMORY ADDRESSING

Intel has beefed up its entry-level Celeron processor range with the introduction of its 64-bit instruction set. The enhancement, known as Extended Memory 64 Technology (EM64T), is found on the new Celeron D 351.

According to the chip giant, the arrival of the D 351 means that 64-bit memory addressing is now available across the whole range of its desktop and server processors. However, this currently doesn't apply to its notebook chips.

Fabricated using Intel's 90nm manufacturing process, the new Celerons comprise five different versions with a selection of clock speeds. The top-of-the-range Celeron D processor 351 is clocked at 3.2GHz.

■ AMD LOWERS SOCKET 754 SEMPRON PRICES

AMD announced that it would lower the prices of its Socket 754 Sempron processors in early August. The move came after the company announced that it will phase out the K7 line this quarter.

The new Sempron pricing is expected to be around the same as the K7 line. With Socket 754 motherboards currently very good value for money, the price drop is likely to attract those who want to build a cheap computer.

REVIEW DESKTOP PC

EVESHAM Axis 64 Decimator 78

RATING ★★★★★

PRICE £2,649 inc VAT

SUPPLIER Evesham 08701 609500

DETAILS www.evesham.com



From the outside Evesham's Axis 64 Decimator 78 looks impressive. Its huge metal case hums with cooling fans while an LED and control panel show component temperatures and provide control of fan speeds. This is useful for both overclocking the system and keeping noise output to a minimum. However, it's what's on the inside that counts.

At the heart of the system is an AMD Athlon 64 X2 4800+ processor. This has two processor cores on one chip running at 2.4GHz, each with its own 1MB of Level 2 cache. Supplemented with 1GB of memory, this specification is blisteringly fast, as its *Shopper* benchmarks and PCMark04 scores illustrate. It will cope with anything you throw at it.

It's particularly impressive running applications designed to harness both processors. The video-encoding component of our benchmark returned a record score of 210, which is about 40 per cent faster than the most powerful single-core processor. A 250GB hard disk, which is perhaps a little stingy considering the price, two-layer DVD writer and DVD-ROM take care of storage.

Gamers can begin salivating now. The Axis 64 Decimator 78 comes with two 256MB GeForce 7800GTX graphics cards in SLI configuration. This is

the most powerful setup currently available for desktop PCs. Not only does it run the most taxing games at ludicrously fast frame rates and the highest resolution, but each scene is rendered in beautiful detail using a raft of new special effects.

It's pretty hard to push the twin GeForce 7800 graphics system to the limit of its capabilities. You really need to increase the resolution – as well as the detail level – of a game to get the most out of it. To that end, Evesham includes ViewSonic's VP201b, a 20.1" LCD with a maximum resolution of 1,600x1,200. Although it has a relatively slow pixel response time of 16ms, it gives the twin 7800s room to impress. Colours are bright, subtle and accurate, and greyscale are smooth and true.

We can confidently state that the Axis 64 Decimator 78 is the fastest system we've ever seen. The combination of Athlon 64 X2 4800+ and twin GeForce 7800GTX graphics cards is irresistible, which is more than can be said for the price. At the moment there aren't any games that require this much power. This PC will cope comfortably with any future games, but for the here and now you can get all the power you need for much less.

David McKinnon

PERFORMANCE SCORES



✓ Lightning fast in every department

✗ Expensive; no games need this kind of power

SPECIFICATIONS AMD Athlon 64 X2 4800+ processor, 1GB memory, 250GB hard disk, two 256MB nVidia GeForce 7800GTX graphics cards in SLI configuration, DVD+/-RW +/-DL, DVD-ROM, 20.1" LCD

HOTLIST DESKTOP PC

MESH Matrix Titan Vision

RATING ★★★★★

PRICE £999 inc VAT

SUPPLIER Mesh Computers 08700 464747

DETAILS www.meshcomputers.com



Mesh's Matrix Titan Vision might not be the most attractive PC on the market, but inside it's a different story. It uses an Asus SLI motherboard with one nVidia 6800 graphics card installed. For now it gives great performance in games, and you can upgrade in the future by adding a second 6800 card in SLI mode.

The Athlon 3800+ is a powerful and well-priced processor. With 1GB of memory, the Matrix achieved some brilliant scores in our benchmarks. Rounding off the system is an excellent ViewSonic 19" LCD, which has outstanding image quality and displayed vibrant colours. With a native resolution of 1,280x1,024 it's well matched to the high level of detail the graphics card can provide.

A 250GB hard disk and DVD+/-RW +/-DL drive provide a healthy amount of storage.

Mesh has chosen a well-balanced range of components and built an excellent PC for today and, with room to upgrade, it's a PC that you'll be able to use for tomorrow's tasks as well.

SPECIFICATIONS AMD Athlon 64 3800+, 1GB RAM, 250GB hard disk, nVidia GeForce 6800 graphics, DVD+/-RW +/-DL, DVD-ROM, 19" LCD

REVIEW DESKTOP PC

MESH Matrix Titan FX57 G70

RATING ★★★★★

PRICE £1,845 inc VAT

SUPPLIER Mesh Computers 08700 464747

DETAILS www.meshcomputers.com


Mesh's Matrix Titan FX57 G70 looks like other PCs, but a cutting-edge system lurks beneath its façade. Sitting in an Asus SLI motherboard is a 2.8GHz AMD Athlon 64 FX57 processor. Dual-processor Athlon 64s are significantly faster than the FX57 in applications designed to use two cores, but in single-threaded programs the FX57 is king.

The £1,200 Mesh system in this month's PC Price Test (see *Labs*, page 150) uses a dual-core processor and scores 178 in our multithreaded video-encoding benchmark, while the Matrix Titan FX57 manages only a respectable 125. The image-editing test is single-threaded, though, and the FX57 blasts through this with a record-breaking 150. As games are generally single-threaded, the FX57 is the definitive gaming processor.

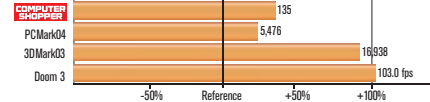
The Matrix's gaming credentials are further boosted by an nVidia GeForce 7800GTX graphics card. As well as producing more frames per second than any other card, the 7800GTX incorporates a host of new technology to render scenes with more detail and visual effects. In the unlikely event that you find the breakneck frame rate too sedate, you can fit a second 7800GTX and connect them through an SLI bridge for yet more performance.

The 19" ViewSonic VX924 LCD has a maximum resolution of 1,280x1,024. It's unlikely you'll see a significant performance increase from an SLI upgrade at this resolution, but this is still a first-class gaming monitor. Colours are rich and vibrant with a smooth transition from light to dark. It is also the first LCD monitor to have a 4ms response time (see our review on page 31), which eliminates ghosting and motion blur, although it's hard to tell the difference between this and an 8ms monitor.

With such expensive components at the core – the processor alone costs nearly £700 – Mesh keeps peripheral devices to a minimum. Creative Inspire T7900 surround-sound speakers add a punchy extra dimension to your games, but beware of the trailing wires. A wireless keyboard and mouse combination from Logitech round off the bundle.

Cutting-edge technology rarely comes cheap, and the Matrix Titan FX57 certainly doesn't. It's not the fastest system we've seen, but its processor, graphics card and monitor make it the most suitable for gaming. If you've got the cash you won't be disappointed, but anyone looking for value for money should read our PC Price Test.

David McKinnon

PERFORMANCE SCORES


The fastest single core processor currently available



Expensive

SPECIFICATIONS AMD Athlon 64 FX57 processor, 1GB RAM, 300GB hard disk, 256MB nVidia GeForce 7800GTX graphics, DVD+/-RW, 19" LCD

HOTLIST DESKTOP PC

ADVENT T8

RATING ★★★★★

PRICE £999 inc VAT

SUPPLIER PC World 08702 420444

DETAILS www.pcworld.co.uk


You usually have to pay a hefty premium for the latest technology, but Advent's T8 is surprisingly affordable. It costs just under £1,000 but uses Intel's dual-core Pentium D 820 processor, with each core running at 2.8GHz. Combined with 1GB of memory, this processor scored 137 in the *Computer Shopper* benchmarks; one of the best results we've seen.

Graphics are a little more disappointing, as the 256MB Radeon X700Pro isn't the fastest card on the market, though it will still handle the latest releases at lower resolutions. Advent includes an analogue TV tuner card, so you can

schedule recordings using the bundled version of Windows XP Media Center Edition and the provided remote control.

With a 400GB hard disk and DVD+/-RW +/-DL drive, this is an excellent, well-balanced system.

SPECIFICATIONS Intel Pentium D 820 processor, 1GB PC4200 RAM, 400GB hard disk, 256MB ATI Radeon X700Pro graphics, DVD+/-RW +/-DL, DVD-ROM, 17" LCD

BYTE SIZE!



Our round-up of the best new gadgets and software

TRUST MI-5500X Bluetooth Optical Mouse

RATING ★★★★★

PRICE £42 inc VAT

SUPPLIER www.cannings.co.uk
DETAILS www.trust.com


Bluetooth mice don't suffer from the interference problems of RF wireless mice. However, it is rare to find a PC or notebook with Bluetooth built in. Trust gets around this by bundling a USB dongle with the MI-5500X.

Installation is simple with Windows SP2, as the dongle is automatically recognised, but you need another mouse to operate Windows while you pair the Bluetooth mouse with your PC. The mouse is nice to use, with accurate 800dpi movement and comfortable rubber buttons. Its price is reasonable, but the complex setup and comparatively high cost mean that normal wireless mice are better value.

Chris Finnamore

CASETEC Office Black notebook case

RATING ★★★★★

PRICE £55 inc VAT

SUPPLIER www.consumeit.co.uk
DETAILS www.casetec.co.uk


In contrast to the fancy rucksack-style cases that are currently in vogue, UK-based Casetec supplies more traditional notebook bags. The Casetec Office Black notebook case is a smart and understated all-leather bag for notebooks with up to 16" screens.

The main compartment is large and deep enough for a desktop replacement notebook, and there are pockets for A4-size folders inside the main compartment. The front of the bag has a Velcro flap for pens and room for your notebook's power supply, but not much else. If you put in anything thicker than a slim book, the cover won't close. The case is strong and feels well made, but it is extremely expensive for such a run-of-the-mill notebook bag.

Chris Finnamore



BYTE SIZE!



Our round-up of the best new gadgets and software

EPHOTO MAKER

RATING ★★★★★

PRICE £49 inc VAT

SUPPLIER www.shutterspeedonline.com

DETAILS www.ephotomaker.co.uk

Digital photography is a great way for hobbyists to catalogue their collections or for budding entrepreneurs to tout their wares on eBay. But to produce consistent, well-lit shots you can't just plonk your item on a table and rely on your camera's flash.

The ePhotomaker is a small portable photo studio that, when packed in its blue carry case, is little bigger than a Frisbee. The kit includes a 65cm collapsible light tent, a grey card to gauge exposure, a mini tripod and a daylight filter with a couple of clips to fit it to a desk lamp. If you have a large collection to be photographed or you're a regular eBay trader, the convenience of a fold-away photo studio could justify the £49 outlay.

David McKinnon



ENERMAX 535W

RATING ★★★★★

PRICE £69 inc VAT

SUPPLIER www.chillblast.com

DETAILS www.enermax.com

While not as mighty as its Noisetaker 600W PSU, Enermax's 535W still has enough output for a powerful SLI system. It has a connector for anything you can find in a PC, with four SATA power leads, seven standard four-pin plugs and two PCI Express for graphics cards in SLI mode.

It has two fans to keep the graphics cards and processor cool, and is extremely quiet. The box also contains a six-pin to four-pin 12V adaptor, so you can connect it to older motherboards. It's a quiet and powerful power supply and excellent value.

Chris Finnamore



REVIEW MEDIA CENTER PC

HI-GRADE DMS XTC 2000

RATING ★★★★★

PRICE £1,409 inc VAT

SUPPLIER Hi-Grade 020 8532 6111

DETAILS www.higrade.co.uk



If the idea of ditching your VCR for a digital recorder sounds tempting, take a peek at the gorgeous DMS XTC 2000. We've seen Hi-Grade's DMS case before, so it's what lies beneath the unassuming exterior that's really interesting.

Hi-Grade has sensibly installed two Blackgold Digital TV tuners. This allows you to watch one channel while the other tuner records another programme on a different channel. Better still, because both tuners are digital, they can receive the 30 or so Freeview channels, including ITV2, E4, BBC Three and BBC Four.

Whereas previous Hi-Grade DMS systems we've reviewed were powered by Intel Pentium 4 processors, the DMS XTC 2000 uses one of Intel's Pentium M processors that are usually found in laptops. So why use a mobile processor in a desktop PC? Well, although the Pentium M in the Hi-Grade only runs at a modest clock speed of 2.0GHz, it pumps out plenty of processing power when required, but does so without creating too much heat or consuming huge amounts of electricity. And because Pentium M processors don't get as warm as Pentium 4s, or chips made by rival AMD, they don't require masses of cooling, so Hi-Grade is

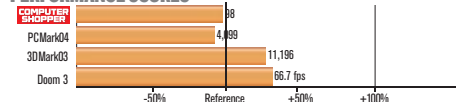
able to keep the DMS Xtreme incredibly quiet. Put your ear to the back of the case and all you'll hear is the gently muffled purr of a couple of fans. Despite its whisper-quiet operation, however, the Hi-Grade still racked up a respectable score in the *Shopper* application benchmarks.

Hi-Grade certainly hasn't skimped on the rest of the PC's specification, either. Keeping the Pentium M 2.0GHz company is a generous 1GB of PC3200 DDR RAM. Media Center PCs also need plenty of hard disk space to store all those recorded programmes. The DMS XTC comes well equipped with two 200GB hard disks. To top it all off, Hi-Grade has fitted a powerful 256MB nVidia GeForce 6800GT graphics card, so the DMS XTC is ready for any game you care to play. All this performance comes at a price, though.

For a PC that doesn't come with a monitor or speakers, it is an expensive piece of kit. But then, this is a Media Center PC, so it's designed to be hooked up to your TV. If you want a PC that will replace your VCR, DVD player and your games console too, then the Hi-Grade will set your heart aflutter. But be prepared to pay substantially for it.

Sasha Muller

PERFORMANCE SCORES



✓ Quiet; good 2D performance and superb 3D performance

✗ Expensive; slightly chunky

SPECIFICATIONS Pentium M 2.0GHz processor, 1GB RAM, two 200GB hard disks, nVidia 6800GT graphics, double-layer DVD writer

HOTLIST MEDIA CENTER PC

ACER Aspire L200 Living Centre

RATING ★★★★★

PRICE £899 inc VAT

DETAILS www.acer.co.uk

Acer's Aspire L200 Living Centre looks just like any other bit of home entertainment kit. Inside, though, it's a fully fledged Media Centre PC. It's very quiet, with only the gentle hum of the processor and power supply fans breaking the silence.

Its Athlon 64 3200+ processor and 512MB of memory helped it score respectably in our 2D benchmarks. However, the onboard Radeon X200 graphics mean that you can't really play any games on it.

Games aren't what the L200 is about, though. With a digital TV card, it's perfect for recording, pausing and scheduling TV. However, the 160GB hard disk is a little stingy. If you store



lots of music and photos on the L200, as well as TV programmes, it will soon be eaten up.

For the money, though, the Aspire L200 Living Centre is great value and shows how good Media Center PCs can be.

SPECIFICATIONS AMD Athlon 3200+ processor, 512MB memory, 160GB hard disk, 128MB ATI Radeon X200 graphics, DVB-T/analogue TV tuner, DVD+/-RW



CHOOSING A...

PC

SYSTEM

Follow our simple step-by-step guide to buying a PC and get the perfect system for your needs

1 The minimum specification of PC we recommend, shown in grey opposite, is a good starting point when working out your ideal system. This PC would cost around £500 and is perfectly capable of running everyday office, multimedia or education software, as well as doing anything on the internet. But it's an unexciting PC. It will be able to play DVD movies, but they won't sound too impressive and games are a total no-no.

2 If you're interested in editing your own movies, you'll need a DVD rewriter. Make sure that you get one that supports both +R and -R formats. It's also worth getting one that will write double-layer discs, as this lets you squeeze twice as much information on a DVD.

There's not much difference in price between the different drive speeds, so we recommend getting one that can write DVD+R and DVD-R at 16X, and DVD+R DL at 4X. If you'll be doing a lot of video projects and disc writing, upgrade to a 200GB hard disk as a minimum.

3 Interested in games? Then upgrade to 512MB or 1GB of memory and a 200GB disk and get a graphics card. Budget cards based on the GeForce FX 5200 graphics processor or Radeon 9800 will cope with this year's games, but to play next year's just as smoothly (and enjoy gorgeous graphics today) you'll want anything up to a GeForce FX 6800Ultra or Radeon X850XT. You'll also need a faster processor.

4 Which faster processor? Well, faster AMD processors such as the Athlon 64 3400+ are good value. An Athlon FX-based system will cost £300 more but offers much better performance. The alternative is a PC based on Intel's Pentium 4 processor. These are also pricier, but many people feel reassured by the Intel brand, and the fastest P4s always do well in our performance tests.

5 If you're really not interested in games you can definitely live with integrated or cheap graphics, but there are plenty more reasons to upgrade the memory, hard disk or processor. If you'll use your PC for serious DTP, music or photo editing you need the same kind of processor, memory and disk

as for games. For video editing, consider getting two hard disks, perhaps in a RAID array.

6 A quality sound system will enhance all manner of PC activities. To hear the surround soundtrack of a DVD at its best, you'll need a quality 5.1 speaker system. Games can also use such a system to throw sound effects around you. If you're interested in neither games nor DVDs (or don't want to trail wires all around the room), go for a quality stereo pair with a sub-woofer to boost the bass instead.

If you're interested in music or want better-quality sound, you'll need to invest in a dedicated sound card. As well as providing enhanced sound, such as Environmental Audio eXtension (EAX), which tweaks the acoustics to make sound appear to be playing in different environments, you'll get higher-quality outputs and more inputs.

7 Although 17" LCD screens save on desk space and look stylish, the limited display size means some may find onscreen text hard to read. A 19" LCD will cost around £50 more, has the same resolution (1,280x1,024) and is easier on the eye. It's a better choice for those who want to edit large photos, documents or spreadsheets, run two applications side by side, or just look important. Twenty inch LCDs are available from £400 and have a much higher resolution (1,600x1,200).

FILL IN YOUR SPECS HERE

(Recommended minimum in grey)

PROCESSOR: Athlon 64 3000+

MEMORY: 256MB DDR

HARD DISK: 120GB

STORAGE: 52X CD-RW/16X DVD combo drive

SOUND: Integrated

SPEAKERS: Stereo

GRAPHICS: Integrated

MONITOR: 17" LCD

EXTRAS: 56K modem

CONNECTORS: 4x USB2.0, network

SOFTWARE: Windows XP Home Edition

BASICS: Keyboard, mouse

8 The standard set of connectors can be usefully improved with extra USB2 ports, to which most run-of-the-mill PC gadgets attach, and a FireWire port, for fancy gadgets including digital video (DV) cameras.

9 Windows XP Home Edition is preinstalled on most new PCs. Any extra software bundled should be assessed critically. It may be that you'll never actually use it. But equally, you may happen across a PC that includes software you'd otherwise have paid for, in which case you'll almost certainly save lots of money by having it preloaded, although you won't get technical support included.

10 Money left over? A TV card will let you watch television on your PC screen plus record programmes to your hard disk, or capture analogue video from a camcorder. Rather than splashing out on an extended warranty, pay extra to get the make of PC your friends or colleagues swear by.

